

Copyright (c) 1993 - 2000 Compugen Ltd.									
<b>GENCORE VERSION 4.5</b>									
<b>OM protein - protein search, using SW model</b>									
Run on: January 7, 2002, 16:05:25 ; Search time 77.81 Seconds									
(without alignments)									
21.676 Million cell updates/sec									
Title: US-08-569-749-8	Perfect score: 267	Sequence: 1 LAKAGYYTIGPDRVACFAC... . . . . . WEPKDQNMSTHLRHPKCPF 46	Scoring table: BLOSUM62	Gapop 10.0 , Gapext 0.5	Searched: 100059 seqs, 35664827 residues	Total number of hits satisfying chosen parameters: 100059	Minimum DB seq length: 0	Maximum DB seq length: 200000000	Post-processing: Minimum Match 0%, Maximum Match 100%
Database : SwissProt; 39; *									
Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.									
SUMMARIES									
Result No.	Score	Query Length	DB ID	Description	RESULT	1	BIR2_HUMAN	BIR2_HUMAN STANDARD;	PRT: 604 AA.
1	267	100.0	604	1 BIR2_HUMAN	ID:	BIR2_HUMAN	AC: Q013489	PR: 011489; Q16028; Q9046;	PR: 011489; Q16028; Q9046;
2	254	95.1	358	1 PIAP_PIG	AC:	PIAP_PIG	DT: 01-NOV-1997 (Rel. 35, last sequence update)	DT: 01-NOV-1997 (Rel. 35, last sequence update)	DT: 01-NOV-1997 (Rel. 35, last sequence update)
3	248	92.9	618	1 BIR3_HUMAN	AC:	BIR3_HUMAN	DT: 20-AUG-2001 (Rel. 40, last annotation update)	DT: 20-AUG-2001 (Rel. 40, last annotation update)	DT: 20-AUG-2001 (Rel. 40, last annotation update)
4	247	92.5	612	1 BIR3_MOUSE	AC:	BIR3_MOUSE	DE: BACULOVIRAL IAP REPEAT-CONTAINING PROTEIN 1 (INHIBITOR OF APOPTOSIS PROTEIN 1) (HIAP1) (HIAP1) (C-IAP2) (TNFR2-TRAF SIGNALING COMPLEX PROTEIN 1) (IAP HOMOLOG C)	DE: BACULOVIRAL IAP REPEAT-CONTAINING PROTEIN 1 (INHIBITOR OF APOPTOSIS PROTEIN 1) (IAP HOMOLOG C)	DE: BACULOVIRAL IAP REPEAT-CONTAINING PROTEIN 1 (INHIBITOR OF APOPTOSIS PROTEIN 1) (IAP HOMOLOG C)
5	235	88.0	600	1 BIR2_MOUSE	AC:	BIR2_MOUSE	GN: BIR2_HUMAN	GN: BIR2_HUMAN	GN: BIR2_HUMAN
6	186	69.7	611	1 BIR_CHICK	AC:	BIR_CHICK	GN: BIR2_OR_AP1 OR MIHC	GN: BIR2_OR_AP1 OR MIHC	GN: BIR2_OR_AP1 OR MIHC
7	182	68.2	497	1 BIR1_HUMAN	AC:	BIR1_HUMAN	GN: Homo sapiens (Human)	GN: Homo sapiens (Human)	GN: Homo sapiens (Human)
8	177	66.3	496	1 BIR4_MOUSE	AC:	BIR4_MOUSE	OC: Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo	OC: Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo	OC: Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
9	175	65.5	496	1 BIR4_RAT	AC:	BIR4_RAT	OX: Oryctolagus cuniculus	OX: Oryctolagus cuniculus	OX: Oryctolagus cuniculus
10	145	54.3	498	1 BIR2_DRONE	AC:	BIR2_DRONE	RN: [1]	RN: NCBI_TAXID=9606;	RN: NCBI_TAXID=9606;
11	141	52.8	1402	1 BIRG_MOUSE	AC:	BIRG_MOUSE	RR: "The TNFR2-TRAF signaling complex contains two novel proteins related to baculoviral inhibitor of apoptosis proteins."	RR: "The TNFR2-TRAF signaling complex contains two novel proteins related to baculoviral inhibitor of apoptosis proteins."	RR: "The TNFR2-TRAF signaling complex contains two novel proteins related to baculoviral inhibitor of apoptosis proteins."
12	141	52.8	1403	1 BIR1_HUMAN	AC:	BIR1_HUMAN	RL: Cell 83:1243-1252(1995).	RL: Cell 83:1243-1252(1995).	RL: Cell 83:1243-1252(1995).
13	141	52.8	1403	1 BIR_A MOUSE	AC:	BIR_A MOUSE	RN: [2]	RN: [2]	RN: [2]
14	141	52.8	1403	1 BIR_E MOUSE	AC:	BIR_E MOUSE	RR: SEQUENCE FROM N.A.	RR: SEQUENCE FROM N.A.	RR: SEQUENCE FROM N.A.
15	141	52.8	1403	1 BIR_F MOUSE	AC:	BIR_F MOUSE	RC: TISSUE=liver;	RC: TISSUE=liver;	RC: TISSUE=liver;
16	138	51.7	1447	1 BIRB_MOUSE	AC:	BIRB_MOUSE	RA: MEDLINE=96194249; PubMed=8552191;	RA: MEDLINE=96194249; PubMed=8552191;	RA: MEDLINE=96194249; PubMed=8552191;
17	135	50.6	268	1 IAP3_NPYOP	AC:	IAP3_NPYOP	RA: Liston P., Roy N., Tamai K., Lefebvre C., Baird S., Cherton-Horvat G., Farahani R., McLean M., Ikeda J., Mackenzie A., Korneluk R.G.;	RA: Liston P., Roy N., Tamai K., Lefebvre C., Baird S., Cherton-Horvat G., Farahani R., McLean M., Ikeda J., Mackenzie A., Korneluk R.G.;	RA: Liston P., Roy N., Tamai K., Lefebvre C., Baird S., Cherton-Horvat G., Farahani R., McLean M., Ikeda J., Mackenzie A., Korneluk R.G.;
18	131	49.1	275	1 IAP_GYCP	AC:	IAP_GYCP	RT: "Suppression of apoptosis in mammalian cells by NAIP and a related family of IAP genes.";	RT: "Suppression of apoptosis in mammalian cells by NAIP and a related family of IAP genes.";	RT: "Suppression of apoptosis in mammalian cells by NAIP and a related family of IAP genes.";
19	129	48.3	438	1 IAPL_DRONE	AC:	IAPL_DRONE	RT: Nature 379:349-353(1996).	RT: Nature 379:349-353(1996).	RT: Nature 379:349-353(1996).
20	122.5	45.9	4829	1 BIR6_HUMAN	AC:	BIR6_HUMAN	RR: [3]	RR: [3]	RR: [3]
21	112	41.9	239	1 B2PF_IKV6	AC:	B2PF_IKV6	RR: SEQUENCE FROM N.A.	RR: SEQUENCE FROM N.A.	RR: SEQUENCE FROM N.A.
22	105.5	39.9	140	1 BIR5_MOUSE	AC:	BIR5_MOUSE	RC: TISSUE=retal liver;	RC: TISSUE=retal liver;	RC: TISSUE=retal liver;
23	105.5	39.5	142	1 BIR5_RAT	AC:	BIR5_RAT	RA: MEDLINE=96209843; PubMed=8643514;	RA: MEDLINE=96209843; PubMed=8643514;	RA: MEDLINE=96209843; PubMed=8643514;
24	103	38.6	997	1 BIR1_SCHPO	AC:	BIR1_SCHPO	RA: Uren A.G., Pakusch M., Hawkins C.J., Puls K.L., Vaux D.L.;	RA: Uren A.G., Pakusch M., Hawkins C.J., Puls K.L., Vaux D.L.;	RA: Uren A.G., Pakusch M., Hawkins C.J., Puls K.L., Vaux D.L.;
25	93	34.8	286	1 IAP_NPYAC	AC:	IAP_NPYAC	RT: "Cloning and expression of apoptosis inhibitory protein homologs that function to inhibit apoptosis and/or bind tumor necrosis factor receptor-associated factors.";	RT: "Cloning and expression of apoptosis inhibitory protein homologs that function to inhibit apoptosis and/or bind tumor necrosis factor receptor-associated factors.";	RT: "Cloning and expression of apoptosis inhibitory protein homologs that function to inhibit apoptosis and/or bind tumor necrosis factor receptor-associated factors.";
26	92.5	34.6	142	1 BIR5_HUMAN	AC:	BIR5_HUMAN	RT: Proc. Natl. Acad. Sci. U.S.A. 93:4974-4978(1996).	RT: Proc. Natl. Acad. Sci. U.S.A. 93:4974-4978(1996).	RT: Proc. Natl. Acad. Sci. U.S.A. 93:4974-4978(1996).
27	90	33.7	275	1 IAPL_NPYOP	AC:	IAPL_NPYOP	RR: [4]	RR: [4]	RR: [4]
28	72.5	27.2	224	1 IAPL_NSF87	AC:	IAPL_NSF87	RR: SEQUENCE FROM N.A.	RR: SEQUENCE FROM N.A.	RR: SEQUENCE FROM N.A.
29	69.5	26.0	224	1 IAPL_ASFM1	AC:	IAPL_ASFM1	RA: MEDLINE=9922096; PubMed=10233894;	RA: MEDLINE=9922096; PubMed=10233894;	RA: MEDLINE=9922096; PubMed=10233894;
30	66.5	24.9	224	1 IAPL_ASFC3	AC:	IAPL_ASFC3	RA: Horrevoets A.J., Fontijn R.D., van Zonneveld A.J., de Vries C.J., ten Cate J.W., Pannenck H.;	RA: Horrevoets A.J., Fontijn R.D., van Zonneveld A.J., de Vries C.J., ten Cate J.W., Pannenck H.;	RA: Horrevoets A.J., Fontijn R.D., van Zonneveld A.J., de Vries C.J., ten Cate J.W., Pannenck H.;
31	66.5	24.9	224	1 IAPL_ASFR	AC:	IAPL_ASFR	RT: "Vascular endothelial genes that are responsive to tumor necrosis factor alpha in vitro are expressed in atherosclerotic lesions, including inhibitor of apoptosis protein-1, stanniin, and two novel genes.";	RT: "Vascular endothelial genes that are responsive to tumor necrosis factor alpha in vitro are expressed in atherosclerotic lesions, including inhibitor of apoptosis protein-1, stanniin, and two novel genes.";	RT: "Vascular endothelial genes that are responsive to tumor necrosis factor alpha in vitro are expressed in atherosclerotic lesions, including inhibitor of apoptosis protein-1, stanniin, and two novel genes.";
32	66.5	24.9	238	1 IAPL_ASFM2	AC:	IAPL_ASFM2	RT: Blood 93:3418-3431(1999).	RT: Blood 93:3418-3431(1999).	RT: Blood 93:3418-3431(1999).
33	60	22.5	249	1 IAPL_NFVAC	AC:	IAPL_NFVAC	CC: -!- FUNCTION: apoptotic suppressor. THE BIR MOTIFS REGION INTERACTS WITH INF RECEPTOR ASSOCIATED FACTORS 1 AND 2 (TRAFL AND TRAF2), TO FORM AN HETEROERIC COMPLEX, WHICH IS THEN RECRUITED TO THE TUMOR NECROSIS FACTOR RECEPTOR 2 (TNFR2).	CC: -!- FUNCTION: apoptotic suppressor. THE BIR MOTIFS REGION INTERACTS WITH INF RECEPTOR ASSOCIATED FACTORS 1 AND 2 (TRAFL AND TRAF2), TO FORM AN HETEROERIC COMPLEX, WHICH IS THEN RECRUITED TO THE TUMOR NECROSIS FACTOR RECEPTOR 2 (TNFR2).	CC: -!- FUNCTION: apoptotic suppressor. THE BIR MOTIFS REGION INTERACTS WITH INF RECEPTOR ASSOCIATED FACTORS 1 AND 2 (TRAFL AND TRAF2), TO FORM AN HETEROERIC COMPLEX, WHICH IS THEN RECRUITED TO THE TUMOR NECROSIS FACTOR RECEPTOR 2 (TNFR2).

THE ADULT EXPRESSION IS MAINLY SEEN IN LYMPHOID TISSUES.  
 CC INCLUDING SPLEEN, THYMUS AND PERIPHERAL BLOOD LYMPHOCYTES.  
 CC -!- SIMILARITY: BELONGS TO THE LAP FAMILY.  
 CC -!- SIMILARITY: CONTAINS 3 BIR REPEATS.  
 CC -!- SIMILARITY: CONTAINS 1 CARD DOMAIN.  
 CC  
 CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
 between the Swiss Institute of Bioinformatics and the EMBL outstation -  
 the European Bioinformatics Institute. There are no restrictions on its  
 use by non profit institutions as long as its content is In no way  
 modified and this statement is not removed. Usage by and for commercial  
 entities requires a license agreement. (See <http://www.isb-sib.ch/announce/>  
 CC or send an email to license@isb-sib.ch).  
 CC  
 DR EMBL; L49432; AAC1943.1; -;  
 DR EMBL; 045878; AAC50371.1; -;  
 DR EMBL; U37546; AAC50507.1; -;  
 DR EMBL; AF070674; AAC83232.1; -;  
 DR InterPro; IPR001370; BIR.  
 DR InterPro; IPR001315; CARD.  
 DR InterPro; IPR001811; Znf\_finger.  
 DR Pfam; PF00653; BIR; 3.  
 DR Pfam; PF00619; CARD; 1.  
 DR Pfam; PF00097; zf-C3HC4; 1.  
 DR SMART; SM00238; BIR; 3.  
 DR SMART; SM00114; CARD; 1.  
 DR SMART; SM00184; RING; 1.  
 DR PROSITE; PS01282; BIR\_REPEAT\_1; 3.  
 DR PROSITE; PS50143; BIR\_REPEAT\_2; 3.  
 DR KW Apoptosis; Zinc-finger; Repeat.  
 FT REPEAT 29 95 BIR 1.  
 FT REPEAT 169 235 BIR 2.  
 FT REPEAT 255 322 BIR 3.  
 FT DOMAIN 447 525 CARD.  
 FT 2N\_FING 591 551 RING\_TYPE.  
 FT CONFLICT 18 18 N -> Y (IN REF. 4).  
 FT CONFLICT 119 119 N -> H (IN REF. 2).  
 FT CONFLICT 153 153 D -> E (IN REF. 2).  
 FT CONFLICT 163 163 H -> P (IN REF. 2).  
 FT CONFLICT 165 165 A -> P (IN REF. 2).  
 FT CONFLICT 191 191 K -> R (IN REF. 2).  
 FT CONFLICT 364 364 F -> L (IN REF. 2).  
 FT CONFLICT 552 552 Q -> P (IN REF. 2).  
 SO SEQUENCE 604 AA; 68371 MW; 8581A00BA9AB4A7 CRC64;

Query Match 100.0%; Score 267; DB 1; Length 604;  
 Best Local Similarity 100.0%; Pred. No. 2.9e-21; Indels 0; Gaps 0;  
 Matches 46; Conservative 0; Mismatches 0; Delimiters 0;

Oy 1 LAKAGFYVIGPDRVACFACGGKLNSWEPKDAMSEHLRHPKCPF 46  
 Do 189 LAKAGFYVIGPDRVACFACGGKLNSWEPKDAMSEHLRHPKCPF 234

RESULT 2

PIAP_PIG	STANDARD:	PRT:	358 AA.
ID PIAP_PIG			
AC O62840;			
DT 15-Dec-1998 (Rel. 37, Created)			
DT 15-Dec-1998 (Rel. 37, Last sequence update)			
DE PUTATIVE INHIBITOR OF APOPTOSIS.			
GN PIAP			
OS Sus scrofa (Pig)			
OC Mammalia; Eutheria; Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Metazoa			
OX NCBI_TaxID=9823;			
RN [1]			
RP SEQUENCE FROM N_A.			

RESULT 3

BIR3_HUMAN	STANDARD:	PRT:	618 AA.
ID BIR3_HUMAN			
AC 01490; 016516;			
DT 01-Nov-1997 (Rel. 35, Created)			
DT 01-Nov-1997 (Rel. 35, Last sequence update)			
DT 20-Aug-2001 (Rel. 40, Last annotation update)			
DE BACHUORVAL LAP REPEAT-CONTAINING PROTEIN 3 (INHIBITOR OF APOPTOSIS PROTEIN 2) (HATP2) (HTAP-2) (C-1AP1) (TNFR2-TRAF SIGNALING COMPLEX PROTEIN 2) (LAP_HOMOLOG_B).			
DE PROTEIN 2 (LAP_HOMOLOG_B).			
GN BIR3 OR API2 OR LAP2 OR MHB.			
OC Mammalia; Eutheria; Chordata; Craniata; Vertebrata; Euteleostomi; Homo sapiens (Human);			
OS Homo sapiens (Human);			
NCBI_TaxID=9606;			
RN [1]			
RP SEQUENCE FROM N_A.			

Query Match 95.1%; Score 254; DB 1; Length 358;  
 Best Local Similarity 95.1%; Pred. No. 8.4e-26; Indels 0; Gaps 0;  
 Matches 43; Conservative 2; Mismatches 1; Delimiters 0;

Oy 1 LAKAGFYVIGPDRVACFACGGKLNSWEPKDAMSEHLRHPKCPF 46  
 Do 24 LAKAGFYVIGPDRVACFACGGKLNSWEPKDAMSEHLRHPKCPF 69

SO SEQUENCE 358 AA; 40977 MW; EB2268FA9190A4 CRC64;

TISSUE=Aorta; MEDLINE=9816622; PubMed=9501011; RT "Cytokine induced expression of porcine inhibitor of apoptosis protein (lap) family member is regulated by Nr-kappa B."; RA Sterlik C., de Martin R., Binder B.R., Lipp J.; RL Biochem. Biophys. Res. Commun. 233:827-832(1998); CC  
 CC -!- SIMILARITY: BELONGS TO THE LAP FAMILY.  
 CC -!- SIMILARITY: CONTAINS 2 BIR REPEATS.  
 CC -!- SIMILARITY: CONTAINS 1 CARD DOMAIN.  
 CC -!- SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.  
 CC  
 CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
 between the Swiss Institute of Bioinformatics and the EMBL outstation -  
 the European Bioinformatics Institute. There are no restrictions on its  
 use by non profit institutions as long as its content is In no way  
 modified and this statement is not removed. Usage by and for commercial  
 entities requires a license agreement. (See <http://www.isb-sib.ch/announce/>  
 CC or send an email to license@isb-sib.ch).  
 CC  
 CC -!- SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.  
 CC  
 CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
 between the Swiss Institute of Bioinformatics and the EMBL outstation -  
 the European Bioinformatics Institute. There are no restrictions on its  
 use by non profit institutions as long as its content is In no way  
 modified and this statement is not removed. Usage by and for commercial  
 entities requires a license agreement. (See <http://www.isb-sib.ch/announce/>  
 CC or send an email to license@isb-sib.ch).  
 CC  
 DR EMBL; U79142; AAC39171.1;  
 DR InterPro; IPR001370; BIR.  
 DR InterPro; IPR001315; CARD.  
 DR InterPro; IPR001841; Znf\_finger.  
 DR Pfam; PF00653; BIR; 2.  
 DR Pfam; PF00639; CARD; 1.  
 DR Pfam; PF00097; zf-C3HC4; 1.  
 DR SMART; SM00238; BIR; 2.  
 DR SMART; SM00114; CARD; 1.  
 DR SMART; SM00184; RING; 1.  
 DR PROSITE; PS01282; BIR\_REPEAT\_1; 2.  
 DR PROSITE; PS50143; BIR\_REPEAT\_2; 2.  
 DR KW Apoptosis; Zinc-finger; Repeat.  
 FT REPEAT 90 157 BIR 1.  
 FT REPEAT 4 70 BIR 2.  
 FT DOMAIN 447 525 CARD.  
 FT 2N\_FING 591 551 RING\_TYPE.  
 FT CONFLICT 18 18 N -> Y (IN REF. 4).  
 FT CONFLICT 119 119 N -> H (IN REF. 2).  
 FT CONFLICT 153 153 D -> E (IN REF. 2).  
 FT CONFLICT 163 163 H -> P (IN REF. 2).  
 FT CONFLICT 165 165 A -> P (IN REF. 2).  
 FT CONFLICT 191 191 K -> R (IN REF. 2).  
 FT CONFLICT 364 364 F -> L (IN REF. 2).  
 FT CONFLICT 552 552 Q -> P (IN REF. 2).  
 SO SEQUENCE 604 AA; 68371 MW; 8581A00BA9AB4A7 CRC64;



DR	PROSITE; PS0209; CARD; 1.
KW	Apoptosis; zinc-finger; repeat.
FT	REPEAT; 46 113 BIR 1.
FT	REPEAT; 177 243 BIR 2.
FT	REPEAT; 262 329 BIR 3.
FT	REPEAT; 447 533 CARD.
FT	DOMAIN; 565 599 RING-TYPE.
FT	ZNFING; 380 E -> K (IN REF. 2). RING-TYPE.
FT	CONFFLICT; 612 AA; 65676 MM; E08669D93C6C510D CRC64; SEQUENCE
RESULT	5
BIR2_MOUSE	STANDARD; PRT; 600 AA.
ID	BIR2_MOUSE
AC	008853;
DT	01-NOV-1997 (Rel. 35, created)
DT	01-NOV-1997 (Rel. 35, last sequence update)
DT	20-AUG-2001 (Rel. 40, last annotation update)
DE	BACULOVIRAL IAP REPEAT-CONTAINING PROTEIN 2 (INHIBITOR OF APOPTOSIS PROTEIN 1) (MAP1), (MAP1-1).
GN	BIRC2 OR APRIL (IAP1).
OS	Mus musculus (Mouse).
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX	NCBI_TaxID=10090;
RN	[1]
RP	SEQUENCE FROM N.A.
RC	TISSUE_Skeletal muscle;
RX	MEDLINE-#96110590; PubMed-#941758;
RA	Liston P., LeFebvre C., Fong W.G., Xuan J.Y., Korneluk R.G.;
RT	*Genomic characterization of the mouse inhibitor of apoptosis protein 1 and 2 genes.*; Genomics 46:95-105(1997).
CC	-1- FUNCTION: Apoptotic suppressor. THE BIR MOTIFS REGION INTERACTS WITH TNF RECEPTOR ASSOCIATED FACTORS 1 AND 2 (TRAF1 AND TRAF2) TO FORM AN HETEROGENEOUS COMPLEX, WHICH IS THEN RECRUITED TO THE TUMOR NECROSIS FACTOR RECEPTOR 2 (TNFR2) (BY SIMILARITY).
CC	-1- SUBCELLULAR LOCATION: CYTOPLASMIC (POTENTIAL).
CC	-1- SIMILARITY: BELONGS TO THE IAP FAMILY.
CC	-1- SIMILARITY: CONTAINS 3 BIR REPEATS.
CC	-1- SIMILARITY: CONTAINS 1 CARD DOMAIN.
CC	-1- SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.
CC	This SWISS-PROT entry is copyright. It is produced through a collaboration between the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See <a href="http://www.isb-sib.ch/announce/">http://www.isb-sib.ch/announce/</a> or send an email to license@isb-sib.ch).
CC	EMBL; U86908; AAC35311; -.
DR	MGD; MG1119007; Birc2.
DR	InterPro; IPRO0130; BIR.
DR	InterPro; IPRO01315; CARD.
DR	InterPro; IPRO01841; Znf_fing.
DR	Pfam; PF00653; BIR; 3.
DR	Pfam; PF00619; CARD; 1.
DR	Pfam; PF00097; zf-C3HC4; 1.
DR	SMART; SM00238; BIR; 3.
DR	SMART; SM0014; CARD; 1.
DR	SMART; SM00184; RING; 1.
DR	PROSITE; PS01282; BIR_REPEAT_1; 3.
DR	PROSITE; PS50143; BIR_REPEAT_2; 3.
DR	PROSITE; PS50209; CARD; 1.
KW	Apoptosis; zinc-finger; repeat.
FT	REPEAT; 27 94 BIR 1.
FT	REPEAT; 167 233 BIR 2.
FT	REPEAT; 253 320 BIR 3.
FT	DOMAIN; 444 512 CARD.
FT	ZNFING; 553 587 RING-TYPE.
FT	SEQUENCE; 600 AA; 67198 MM; AD7F73E6849317D1 CRC64; SEQUENCE
RESULT	6
BIR_CHICK	STANDARD; PRT; 611 AA.
ID	BIR_CHICK
AC	090660;
DT	01-NOV-1997 (Rel. 35, created)
DT	01-NOV-1997 (Rel. 35, last sequence update)
DT	20-AUG-2001 (Rel. 40, last annotation update)
DE	INHIBITOR OF APOPTOSIS PROTEIN (IAP) (INHIBITOR OF T CELL APOPTOSIS PROTEIN).
GN	ITR.
OS	Galillus gallus (Chicken).
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC	Gallus.
OX	NCBI_TaxID=9031;
RN	[1]
RP	SEQUENCE FROM N.A.
RC	TISSUE-Spleen;
RX	MEDLINE-#9710112; PubMed-#8945639;
RA	Digby M.R., Kimpton W.G., York J.J., Connick T.E., Lowenthal J.W.;
RT	*A vertebrate homologue of IAP that is expressed in T lymphocytes.*; DNA Cell Biol. 15:981-988(1996).
CC	-1- FUNCTION: Apoptotic suppressor (by similarity).
CC	-1- SUBCELLULAR LOCATION: predominantly nuclear.
CC	-1- TISSUE SPECIFICITY: Cells of the T lymphocyte lineage. Found in both cortical and medullary cells of the thymos.
CC	-1- DEVELOPMENTAL STAGE: High levels are induced within 4-8 hours of T-cell activation in spleen and thymus.
CC	-1- SIMILARITY: BELONGS TO THE IAP FAMILY.
CC	-1- SIMILARITY: CONTAINS 3 BIR REPEATS.
CC	-1- SIMILARITY: CONTAINS 1 CARD DOMAIN.
CC	-1- SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.
CC	This SWISS-PROT entry is copyright. It is produced through a collaboration between the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See <a href="http://www.isb-sib.ch/announce/">http://www.isb-sib.ch/announce/</a> or send an email to license@isb-sib.ch).
CC	EMBL; U27466; AB48118; -.
DR	InterPro; IPRO01370; BIR.
DR	InterPro; IPRO01315; CARD.
DR	InterPro; IPRO01841; Znf_fing.
DR	Pfam; PF00653; BIR; 3.
DR	Pfam; PF00619; CARD; 1.
DR	Pfam; PF00097; zf-C3HC4; 1.
DR	SMART; SM00238; BIR; 3.
DR	SMART; SM0014; CARD; 1.
DR	SMART; SM00184; RING; 1.
DR	PROSITE; PS01282; BIR_REPEAT_1; 3.
DR	PROSITE; PS50143; BIR_REPEAT_2; 3.



the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see <http://www.1sb-1sb.ch/announce/> or send an email to [license@1sb-1sb.ch](mailto:license@1sb-1sb.ch)).

CC EMBL; U88990; AAB52594 1; -.

DR MGD; MGI:107572; BirC.

DR InterPro; IPR013101; Bir.

DR InterPro; IPR01841; Znf\_ring.

DR Pfam; PF00653; Bir; 3.

DR Pfam; PF00097; zf-C3HC4; 1.

DR SMART; SM00238; Bir; 3.

DR SMART; SM00184; Ring; 1.

DR PROSITE; PS01282; Bir\_REPEAT\_1; 3.

DR PROSITE; PS01283; Bir\_REPEAT\_2; 3.

KW Apoptosis; Zinc-finger; Repeat.

FT REPEAT 26 93 BIR 1.

FT REPEAT 163 230 BIR 2.

FT REPEAT 264 329 BIR 3.

FT ZN\_FING 449 483 RING\_TYPE.

FT CONFLICT 208 208 E -> K (IN REF. 2).

FT CONFLICT 317 317 E -> D (IN REF. 2).

FT CONFLICT 322 322 W -> C (IN REF. 2).

FT CONFLICT 345 345 S -> P (IN REF. 2).

FT CONFLICT 360 360 S -> P (IN REF. 2).

FT CONFLICT 388 388 I -> L (IN REF. 2).

FT CONFLICT 449 449 C -> S (IN REF. 2).

FT CONFLICT 462 462 V -> F (IN REF. 2).

FT CONFLICT 468 468 V -> A (IN REF. 2).

FT CONFLICT 490 490 K -> N (IN REF. 2).

SQ SEQUENCE 496 AA; 56079 MW; EC5FAE0799F2CDD8 CRC64;

Query Match 66.3%; Score 177; DB 1; Length 496; Best Local Similarity 67.4%; Pred. No. 1.3e-15; Matches 31; Conservative 1; Mismatches 14; Indels 0; Gaps 0;

Qy 1 LAKAGFYIGPDRVACFGGKLSWEPDNASEHRLRHPKCPF 46

Db 184 LASAGLYYTGAIDQVOCFCGGKLENWERCDRMASEHRHFPNCFF 229

RESULT 9

BIR4\_RAT ID BIR4\_RAT STANDARD; PRT; 496 AA.

AC 09R016; DT 20-AUG-2001 (Rel. 40, Created) 20-AUG-2001 (Rel. 40, Last sequence update)

DT 20-AUG-2001 (Rel. 40, Last annotation update)

DE BACULOVIRAL IAP REPEAT-CONTAINING PROTEIN 4 (INHIBITOR OF APOPTOSIS PROTEIN 3) (X-LINKED INHIBITOR OF APOPTOSIS PROTEIN) (X-LINKED IAP (IAP HOMOLOG A) (RIAP)) (RIAP-3).

DE BIR4 OR API3 OR XIAP.

OS Rattus norvegicus (Rat).

CC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathl; Muridae; Rattus. OC NCBI\_TaxID=10116; RN [1]

RP SEQUENCE FROM N\_A.

RC TISSUE=Embryo; RX MEDLINE-#6128128; PubMed=8548811;

RC Hay B.A., Wasserman D.A., Rubin G.M.; "Drosophila homologs of baculovirus inhibitor of apoptosis proteins function to block cell death." Cell 83:1253-1262(1995).

RN [1]

RP SEQUENCE FROM N\_A.

RC TISSUE=Embryo; RX MEDLINE-#614249; PubMed=8552191;

RC Liston P., Roy N., Tamai K., Lefebvre C., Baird S., Cherton-Horvat G., Farhani R., McLean M., Ikeda J., Mackenzie A., Kornelius R.G.; "Suppression of apoptosis in mammalian cells by NAIP and a related family of IAP genes." Nature 379:349-353(1996). [3]

CC SEQUENCE FROM N\_A.

RC STRAIN=CANTON-S;

RC MEDLINE-#6250286; PubMed=8654366;

RC Ductett C.S., Nava V.E., Gedrich R.W., Clem R.J., van Dongen J.L., Gilfillan M.C., Shiels H., Hardwick J.M., Thompson C.B.; "A conserved family of cellular genes related to the baculovirus gene and encoding apoptosis inhibitors." EMBO J. 15:2685-2694(1996).

This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -

the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See <http://www.1sb-1sb.ch/announce/> or send an email to [license@1sb-1sb.ch](mailto:license@1sb-1sb.ch)).

CC EMBL; AB033366; BRA85304 1; -.

DR InterPro; IPR001370; Bir.

DR InterPro; IPR01841; Znf\_ring.

DR Pfam; PF00097; zf-C3HC4; 1.

DR SMART; SM00194; Ring; 1.

DR PROSITE; PS01282; Bir\_REPEAT\_1; 3.

DR PROSITE; PS01283; Bir\_REPEAT\_2; 3.

KW Apoptosis; Zinc-finger; Repeat.

FT REPEAT 26 93 BIR 1.

FT REPEAT 163 230 BIR 2.

FT REPEAT 264 329 BIR 3.

FT ZN\_FING 449 483 RING\_TYPE.

FT CONFLICT 208 208 E -> K (IN REF. 2).

FT CONFLICT 317 317 E -> D (IN REF. 2).

FT CONFLICT 322 322 W -> C (IN REF. 2).

FT CONFLICT 345 345 S -> P (IN REF. 2).

FT CONFLICT 360 360 S -> P (IN REF. 2).

FT CONFLICT 388 388 I -> L (IN REF. 2).

FT CONFLICT 449 449 C -> S (IN REF. 2).

FT CONFLICT 462 462 V -> F (IN REF. 2).

FT CONFLICT 468 468 V -> A (IN REF. 2).

FT CONFLICT 490 490 K -> N (IN REF. 2).

SQ SEQUENCE 496 AA; 56072 MW; E250E3C77461AA69 CRC64;

Query Match 65.5%; Score 175; DB 1; Length 496; Best Local Similarity 67.4%; Pred. No. 2.3e-15; Matches 31; Conservative 6; Mismatches 14; Indels 0; Gaps 0;

Qy 1 LAKAGFYIGPDRVACFGGKLSWEPDNASEHRLRHPKCPF 46

Db 184 LASAGLYYTGAIDQVOCFCGGKLENWERCDRMASEHRHFPNCFF 229

RESULT 10

ID IAP2\_DROME STANDARD; PRT; 498 AA.

AC 024307; DT 024177; Q24113; Q987G1; DT 01-Nov-1997 (Rel. 35, Created) 01-Nov-1997 (Rel. 35, Last sequence update)

DT 20-AUG-2001 (Rel. 40, Last annotation update)

DE APOPTOSIS 2 INHIBITOR (INHIBITOR OF APOPTOSIS 2) (DIAP2) (DIAP) (IAP HOMOLOG A) (IAP-LIKE PROTEIN) (DILP).

GN TAP2 OR IAP OR DINA OR CG2923.

OS Drosophila melanogaster (fruit fly).

OC Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta; Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; OCO Phyoidea; Drosophilidae; Drosophila.

OX NCBI\_TaxID=7227; RN [1]

RP SEQUENCE FROM N\_A.

RC TISSUE=Eve imaginal disk;

RC MEDLINE-#6128128; PubMed=8548811;

RC Hay B.A., Wasserman D.A., Rubin G.M.; "Drosophila homologs of baculovirus inhibitor of apoptosis proteins function to block cell death." Cell 83:1253-1262(1995).

RN [2]

RP SEQUENCE FROM N\_A.

RC TISSUE=Embryo;

RC MEDLINE-#614249; PubMed=8552191;

RC Liston P., Roy N., Tamai K., Lefebvre C., Baird S., Cherton-Horvat G., Farhani R., McLean M., Ikeda J., Mackenzie A., Kornelius R.G.; "Suppression of apoptosis in mammalian cells by NAIP and a related family of IAP genes." Nature 379:349-353(1996). [3]

CC SEQUENCE FROM N\_A.

RC STRAIN=CANTON-S;

RC MEDLINE-#6250286; PubMed=8654366;

RC Ductett C.S., Nava V.E., Gedrich R.W., Clem R.J., van Dongen J.L., Gilfillan M.C., Shiels H., Hardwick J.M., Thompson C.B.; "A conserved family of cellular genes related to the baculovirus gene and encoding apoptosis inhibitors." EMBO J. 15:2685-2694(1996).

RN	EMBL; U45881; AAC45988.1; -;
RP	DR EMBL; U32373; AAC47155.1; -;
RC	DR EMBL; M96591; -; NOT_ANNOTATED_CDS.
RA	DR EMBL; AE005808; AAC58095.1; -;
RL	DR EMBL; U38809; AAB03398.1; -;
RN	DR FlyBase; FBgn0015247; tap2.
RP	DR InterPro; IPR001370; BIR.
RC	DR pfam; PF00053; BIR; 3.
RA	DR pfam; PF00097; zf-C3HC4; 1.
RA	DR SMART; SM00238; BIR; 3.
RA	DR SMART; SM00184; RING; 1.
RA	DR PROSITE; PS01202; BIR_REPEAT; 1; 3.
RA	DR PROSITE; PS50133; BIR_REPEAT; 2; 3.
RA	KW Apoptosis; Zinc-finger; Repeat.
RA	FT REPEAT; 9 76 BIR 1.
RA	FT REPEAT; 113 179 BIR 2.
RA	FT REPEAT; 212 279 BIR 3.
RA	FT ZN_FING 451 485 RING-TYPE.
RA	FT CONFLICT 5 5 G->V IN REF. 2.
RA	FT CONFLICT 40 40 N->K (IN REF. 2).
RA	FT CONFLICT 64 65 ER->AG (IN REF. 3).
RA	FT CONFLICT 94 94 E->K (IN REF. 1).
RA	FT CONFLICT 282 282 A->D (IN REF. 6).
RA	FT CONFLICT 286 286 A->S (IN REF. 3).
RA	FT CONFLICT 302 302 P->Q (IN REF. 2 AND 5).
RA	FT CONFLICT 303 303 P->T (IN REF. 6).
RA	FT CONFLICT 327 327 A->T (IN REF. 2).
RA	FT CONFLICT 369 376 ALEVERPP->DWRCAR (IN REF. 3).
RA	SO SEQUENCE 498 AA; 54505 MW; 6SEC36A6ED24AD6 CRC64;
RA	RA Tissue=Larva;
RX	RA MEDLINE=96209843; PubMed=8643514;
RA	RA Uren A-G., Pakusch M., Hawkins C.J., Puls K.L., Vaux D.L.;
RA	RA "Cloning and expression of apoptosis inhibitory protein homologs that
RT	RA function to inhibit apoptosis and/or bind tumor necrosis factor
RT	RA receptor-associated factors.";
RT	RA Proc. Natl. Acad. Sci. U.S.A. 93:4974-4978(1996).
RT	RA "- FUNCTION: APOPTOTIC SUPPRESSOR. OVEREXPRESSION SUPPRESSES RPR AND
RT	RA H1-DEPENDENT CELL DEATH IN THE EYE.
RT	RA "- DEVELOPMENTAL STAGE: EXPRESSED AT HIGH LEVELS THROUGHOUT
CC	RA "- SIMILARITY: BELONGS TO THE IAP FAMILY.
CC	RA "- SIMILARITY: CONTAINS 3 BIR REPEATS.
CC	RA "- SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.
CC	RA This SWISS-PROT entry is copyright. It is produced through a collaboration
CC	RA between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC	RA the European Bioinformatics Institute. There are no restrictions on its
CC	RA use by non-profit institutions as long as its content is in no way
CC	RA modified and this statement is not removed. Usage by and for commercial
CC	RA entities requires a license agreement (see <a href="http://www.isb-sib.ch/announce/">http://www.isb-sib.ch/announce/</a> or send an email to license@isb-sib.ch).
CC	RA EMBL; L49441; AAC1610.1; -.
DR	DR DR EMBL; U45881; AAC45988.1; -;
DR	DR DR EMBL; U32373; AAC47155.1; -;
DR	DR DR EMBL; M96591; -; NOT_ANNOTATED_CDS.
DR	DR DR EMBL; AE005808; AAC58095.1; -;
DR	DR DR EMBL; U38809; AAB03398.1; -;
DR	DR DR FlyBase; FBgn0015247; tap2.
DR	DR DR InterPro; IPR001370; BIR.
DR	DR DR pfam; PF00053; BIR; 3.
DR	DR DR pfam; PF00097; zf-C3HC4; 1.
DR	DR SMART; SM00238; BIR; 3.
DR	DR SMART; SM00184; RING; 1.
DR	DR PROSITE; PS01202; BIR_REPEAT; 1; 3.
DR	DR PROSITE; PS50133; BIR_REPEAT; 2; 3.
DR	KW Apoptosis; Zinc-finger; Repeat.
DR	FT REPEAT; 9 76 BIR 1.
DR	FT REPEAT; 113 179 BIR 2.
DR	FT REPEAT; 212 279 BIR 3.
DR	FT ZN_FING 451 485 RING-TYPE.
DR	FT CONFLICT 5 5 G->V IN REF. 2.
DR	FT CONFLICT 40 40 N->K (IN REF. 2).
DR	FT CONFLICT 64 65 ER->AG (IN REF. 3).
DR	FT CONFLICT 94 94 E->K (IN REF. 1).
DR	FT CONFLICT 282 282 A->D (IN REF. 6).
DR	FT CONFLICT 286 286 A->S (IN REF. 3).
DR	FT CONFLICT 302 302 P->Q (IN REF. 2 AND 5).
DR	FT CONFLICT 303 303 P->T (IN REF. 6).
DR	FT CONFLICT 327 327 A->T (IN REF. 2).
DR	FT CONFLICT 369 376 ALEVERPP->DWRCAR (IN REF. 3).
SO	SO SEQUENCE 498 AA; 54505 MW; 6SEC36A6ED24AD6 CRC64;
SO	SO Tissue=Larva;
SO	SO MEDLINE=96209843; PubMed=8643514;
SO	SO RA Uren A-G., Pakusch M., Hawkins C.J., Puls K.L., Vaux D.L.;
SO	SO "Cloning and expression of apoptosis inhibitory protein homologs that
SO	SO function to inhibit apoptosis and/or bind tumor necrosis factor
SO	SO receptor-associated factors.";
SO	SO Proc. Natl. Acad. Sci. U.S.A. 93:4974-4978(1996).
SO	SO "- FUNCTION: APOPTOTIC SUPPRESSOR. OVEREXPRESSION SUPPRESSES RPR AND
SO	SO H1-DEPENDENT CELL DEATH IN THE EYE.
SO	SO "- DEVELOPMENTAL STAGE: EXPRESSED AT HIGH LEVELS THROUGHOUT
SO	SO "- SIMILARITY: BELONGS TO THE IAP FAMILY.
SO	SO "- SIMILARITY: CONTAINS 3 BIR REPEATS.
SO	SO "- SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.
SO	SO This SWISS-PROT entry is copyright. It is produced through a collaboration
SO	SO between the Swiss Institute of Bioinformatics and the EMBL outstation -
SO	SO the European Bioinformatics Institute. There are no restrictions on its
SO	SO use by non-profit institutions as long as its content is in no way
SO	SO modified and this statement is not removed. Usage by and for commercial
SO	SO entities requires a license agreement (see <a href="http://www.isb-sib.ch/announce/">http://www.isb-sib.ch/announce/</a> or send an email to license@isb-sib.ch).
DR	DR DR EMBL; U45881; AAC45988.1; -;
DR	DR DR EMBL; U32373; AAC47155.1; -;
DR	DR DR EMBL; M96591; -; NOT_ANNOTATED_CDS.
DR	DR DR EMBL; AE005808; AAC58095.1; -;
DR	DR DR EMBL; U38809; AAB03398.1; -;
DR	DR DR FlyBase; FBgn0015247; tap2.
DR	DR DR InterPro; IPR001370; BIR.
DR	DR DR pfam; PF00053; BIR; 3.
DR	DR DR pfam; PF00097; zf-C3HC4; 1.
DR	DR SMART; SM00238; BIR; 3.
DR	DR SMART; SM00184; RING; 1.
DR	DR PROSITE; PS01202; BIR_REPEAT; 1; 3.
DR	DR PROSITE; PS50133; BIR_REPEAT; 2; 3.
DR	KW Apoptosis; Zinc-finger; Repeat.
DR	FT REPEAT; 9 76 BIR 1.
DR	FT REPEAT; 113 179 BIR 2.
DR	FT REPEAT; 212 279 BIR 3.
DR	FT ZN_FING 451 485 RING-TYPE.
DR	FT CONFLICT 5 5 G->V IN REF. 2.
DR	FT CONFLICT 40 40 N->K (IN REF. 2).
DR	FT CONFLICT 64 65 ER->AG (IN REF. 3).
DR	FT CONFLICT 94 94 E->K (IN REF. 1).
DR	FT CONFLICT 282 282 A->D (IN REF. 6).
DR	FT CONFLICT 286 286 A->S (IN REF. 3).
DR	FT CONFLICT 302 302 P->Q (IN REF. 2 AND 5).
DR	FT CONFLICT 303 303 P->T (IN REF. 6).
DR	FT CONFLICT 327 327 A->T (IN REF. 2).
DR	FT CONFLICT 369 376 ALEVERPP->DWRCAR (IN REF. 3).
SO	SO SEQUENCE 498 AA; 54505 MW; 6SEC36A6ED24AD6 CRC64;
SO	SO Tissue=Larva;
SO	SO MEDLINE=96209843; PubMed=8643514;
SO	SO RA Uren A-G., Pakusch M., Hawkins C.J., Puls K.L., Vaux D.L.;
SO	SO "Cloning and expression of apoptosis inhibitory protein homologs that
SO	SO function to inhibit apoptosis and/or bind tumor necrosis factor
SO	SO receptor-associated factors.";
SO	SO Proc. Natl. Acad. Sci. U.S.A. 93:4974-4978(1996).
SO	SO "- FUNCTION: APOPTOTIC SUPPRESSOR. OVEREXPRESSION SUPPRESSES RPR AND
SO	SO H1-DEPENDENT CELL DEATH IN THE EYE.
SO	SO "- DEVELOPMENTAL STAGE: EXPRESSED AT HIGH LEVELS THROUGHOUT
SO	SO "- SIMILARITY: BELONGS TO THE IAP FAMILY.
SO	SO "- SIMILARITY: CONTAINS 3 BIR REPEATS.
SO	SO This SWISS-PROT entry is copyright. It is produced through a collaboration
SO	SO between the Swiss Institute of Bioinformatics and the EMBL outstation -
SO	SO the European Bioinformatics Institute. There are no restrictions on its
SO	SO use by non-profit institutions as long as its content is in no way
SO	SO modified and this statement is not removed. Usage by and for commercial
SO	SO entities requires a license agreement (see <a href="http://www.isb-sib.ch/announce/">http://www.isb-sib.ch/announce/</a> or send an email to license@isb-sib.ch).

DR EMBL; AF242433; AF82749.1; -.  
 DR MGD; MG1:1882556; BirGig.  
 DR InterPro; IPR00170; BIR.  
 DR Pfam; PF00553; BIR; 3.  
 DR SMART; SM00238; BIR; 3.  
 DR PROSITE; PS01282; BIR\_REPEAT\_1; 2.  
 DR Apoptosis; Repeat; Multigene family.  
 FT REPEAT 60 127 BIR 1.  
 FT REPEAT 159 227 BIR 2.  
 FT REPEAT 278 345 BIR 3.  
 SEQUENCE 1402 AA; 159662 MW; CIDFPBA359893EOD CRC64;  
  
 Query Match 52.8%; Score 141; DB 1; Length 1402;  
 Best Local Similarity 52.2%; Pred. No. 1.8e-10;  
 Matches 24; Conservative 5; Mismatches 17; Indels 0; Gaps 0; Ov 0;  
 Db 181 LSAAGFVFTGKRTDVOFCSCGGSLGNWEEGDDPWEHAKWPKCEP 226  
  
 BIRL\_HUMAN 52.8%; Score 141; DB 1; Length 1402;  
 Best Local Similarity 52.2%; Pred. No. 1.8e-10;  
 Matches 24; Conservative 5; Mismatches 17; Indels 0; Gaps 0; Ov 0;  
 Db 1 LAKAGFYVIGPGDRVACFGCKLSNWEPKNAMEHRLRHPKCPF 46  
 SEQUENCE 1402 AA; 159662 MW; CIDFPBA359893EOD CRC64;  
  
 RESULT 12  
 BIRL\_HUMAN STANDARD; PRT; 1403 AA.  
 AC 013075; Q13730; 09798; 075857;  
 DT 01-NOV-1997 (Rel. 35, Created)  
 DT 20-AUG-2001 (Rel. 40, Last annotation update)  
 DE BACULOVIRAL IAP REPEAT-CONTAINING PROTEIN 1 (NEURONAL APOPTOSIS  
 INHIBITORY PROTEIN).  
 GN BIRL OR NAIP.  
 OS Homo sapiens (Human).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Primates; Catarrhini; Homidae; Homo.  
 RN NCBL\_TAXID:9806;  
 [1]  
 RP SEQUENCE FROM N.A.;  
 RC TISSUE=Postal brain;  
 MEDLINE-95112344; Pubmed-7813013;  
 RA Roy N., Mahadevan M.S., McLean M., Shuttler G., Yarachil Z.,  
 RA Farahani R., Baird S., Benner-Johnston A., Lefebvre C., Kang X.,  
 RA Salih M., Aubry H., Tamai K., Guan X., Ioannou P., Crawford T.O.,  
 RA de Jong P.J., Surh L., Ikeda J., Korneluk R.G., Mackenzie A.;  
 RT The gene for neuronal apoptosis inhibitory protein is partially  
 RT deleted in individuals with spinal muscular atrophy.;  
 RL Cell 80:167-178(1995).  
 RN [2]  
 RP SEQUENCE FROM N.A., AND REVISIONS.  
 RC TISSUE=Brain;  
 MEDLINE-98163755; Pubmed-5503025;  
 RA Chen Q., Baird S.D., Mahadevan M., Besner-Johnston A., Farahani R.,  
 RA Xuan J.-Y., Kang X., Lefebvre C., Ikeda J.-B., Korneluk R.G.,  
 RA Mackenzie A.E.;  
 RA Submitted (MAY-1995) to the EMBL/GenBank/DBJ databases.  
 RT A 131-kb region of 5q13.1 containing the spinal muscular  
 RT atrophy candidate genes SMN and NAIP.;  
 RL Genomics 48:121-127(1998).  
 RN [3]  
 RP SEQUENCE OF 386-523 FROM N.A.  
 RA der Steeg G., Draaijers T.G., Grootenhuis P.M., Osinga J.,  
 RA Anzvelino R., Velona L., Brahe C., Scheffer H., van Ommen G.J.B.,  
 RA Buys C.H.C.M.;  
 RA Submitted (MAY-1995) to the EMBL/GenBank/DBJ databases.  
 RN [4]  
 RP SEQUENCE OF 222-1403 FROM N.A.  
 RA Jones K., Graves T., McPherson J.;  
 RA Submitted (JUN-1998) to the EMBL/GenBank/DBJ databases.  
 RN [5]  
 RP TISSUE=Liver;  
 FUNCTION;  
 MEDLINE-9619249; PubMed-8552191;  
 RA Liston P., Roy N., Tamai K., Lefebvre C., Baird S., Chertton-Horvat G.,  
 RA

DR Parahani R., McLean M., Ikeda J., Mackenzie A., Korneluk R.G.;  
 DR "Suppression of apoptosis in mammalian cells by NAIP and a related  
 DR family of IAP genes.";  
 DR Nature 379:349-353(1996).  
 DR -!- FUNCTION: PREVENTS MOTOR-NEURON APOPTOSIS INDUCED BY A VARIETY OF  
 DR PROTEINS; PS50143; BIR\_REPEAT\_2; 3.  
 DR Apoptosis; Repeat; Multigene family.  
 FT REPEAT 60 127 BIR 1.  
 FT REPEAT 159 227 BIR 2.  
 FT REPEAT 278 345 BIR 3.  
 SEQUENCE 1402 AA; 159662 MW; CIDFPBA359893EOD CRC64;  
  
 Query Match 52.8%; Score 141; DB 1; Length 1403;  
 Best Local Similarity 52.2%; Pred. No. 1.8e-10;  
 Matches 24; Conservative 6; Mismatches 16; Indels 0; Gaps 0; Ov 0;  
 Db 1 LAKAGFYVIGPGDRVACFGCKLSNWEPKNAMEHRLRHPKCPF 46  
 SEQUENCE 1403 AA; 159613 MW; 566304C154DA5E64 CRC64;  
  
 RESULT 13  
 BIRL\_MOUSE STANDARD; PRT; 1403 AA.  
 ID BIRL\_MOUSE  
 AC Q90W3; Q9J17; Q9JB5;  
 DT 20-AUG-2001 (Rel. 40, Created)  
 DT 20-AUG-2001 (Rel. 40, Last annotation update)  
 DE BACULOVIRAL IAP REPEAT-CONTAINING PROTEIN 1A (NEURONAL APOPTOSIS  
 DE INHIBITORY PROTEIN 1).  
 GN BIRL OR NAIP OR NAIP.  
 OS Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus;  
 OC NCBL\_TAXID:10090;



	RESULT	15
BIRF_MOUSE	STANDARD:	PRT: 1403 AA.
ID	09JB6; P81704; 009122; 009121;	
AC	09JB6; P81704; 009122; 009121;	
DT	20-AUG-2001 (Rel. 40, Created)	
DT	20-AUG-2001 (Rel. 40, Last sequence update)	
DE	BACULOVIRAL TAP REPEAT-CONTAINING PROTEIN 1F (NEURONAL APOPTOSIS INHIBITORY PROTEIN 6).	
GN	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.	
OC	MUS musculus (Mouse)	
OS	BIRNF OR NAIP OR NAIP-RS4.	
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.	
OX	NCBIX-TAXID=10090;	
RN	[1]	
RP	SEQUENCE FROM N.A.	
RX	MEDLINE=2041747; PubMed=10958627;	
RA	Endrizzi M.G., Hadinoto V., Gromley J.D., Miller W., Dietrich W.F.;	
RT	"Genomic sequence analysis of the mouse Naip gene array.";	
RL	Genome Res. 10:1095-1102(2000).	
RN	[12]	
RP	SEQUENCE OF 82-168 FROM N.A.	
RC	STRAIN=129/SVJ;	
RX	MEDLINE=07131520; PubMed=8975718;	
RA	Scharff J.M., Damron D., Friesella A., Bruno S., Beggs A.H., Kuekel L.M., Dietrich W.F.;	
RT	"The mouse region syntetic for human spinal muscular atrophy lies within the Lgnd critical interval and contains multiple copies of Naip exon 5.";	
RL	Genomics 38:405-417(1996).	
CC	-1- FUNCTION: PREVENTS MOTOR-NEURON APOPTOSIS INDUCED BY A VARIETY OF SIGNALS.	
CC	-1- SIMILARITY: CONTAINS 3 BIR REPEATS.	
CC	This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see <a href="http://www.isb-sib.ch/announce/">http://www.isb-sib.ch/announce/</a> or send an email to license@isb-sib.ch).	
CC	--	
DR	EMBL; AP242431; AAC82751; .	
DR	U66327; AAC52975; .	
DR	MGD; MG:1298222; Bircf.	
DR	InterPro: IPR01370; BIR.	
DR	Pfam: PF00653; BIR; 3.	
DR	SMART; SM00238; BIR; 3.	
DR	PROSITE; PS01282; BIR_REPEAT_1; 2.	
DR	PROSITE; PS01043; BIR_REPEAT_2; 3.	
KW	Apoptosis; Repeat; Multigene family.	
FT	REPEAT 160 127 BIR 1.	
FT	REPEAT 159 227 BIR 2.	
FT	REPEAT 278 345 BIR 3.	
SO	SEQUENCE 1403 AA; 159823 MW; 9d4912503358C4E9 CRC64;	
Query Match	52.8%	Score 141; DB 1; Length 1403;
Best Local Similarity	52.2%	Score 141; DB 1; Length 1403;
Matches	24	Score 141; DB 1; Length 1403;
Conservative	5	Score 141; DB 1; Length 1403;
Mismatches	17	Score 141; DB 1; Length 1403;
Indels	0	Score 141; DB 1; Length 1403;
Gaps	0	Score 141; DB 1; Length 1403;
Oy	1 LAKAGFYVIGPGDGRVACACGGKLSNWPDKDNAMSEHRHFRPKCPF 46 181 LSAGAFYVGTVKRQTRVQCGGGLGNRGEEDPWERKAERKF 226	Score 141; DB 1; Length 1403;
Dy		

Tue Jan 8 08:23:53 2002

us-08-569-749-8.rsp

